

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appln. No: 10/715,744
Appellant: Gota ASANO
Filed: November 18, 2003
Title: ALKALINE STORAGE BATTERY AND METHOD
TC/A.U.: 1795
Examiner: Tracy Mae Dove
Confirmation No.: 5520
Notice of Appeal Filed: October 19, 2007
Docket No.: MAT-8484US

REPLY BRIEF UNDER 37 CFR § 41.41

Mail Stop Appeal Brief-Patents

Commissioner for Patents
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S I R :

In response to the EXAMINER'S ANSWER of April 16, 2008, Appellant is submitting this Reply Brief for the above-identified application.

1. Rejection of claims 1-8 as unpatentable over Yoshinaka in view of the APA

Appellant's and the Examiner are in disagreement as to whether the Appellant's claimed feature of "... a terminal of said upper metal current collector is disposed through said hole in the center of said sealing plate ..." renders Appellant's claim patentable. Appellant argues the above feature is not in the prior art. The Examiner agrees, but argues the claim is obvious despite the above feature not being in the prior art.

Appellant's exemplary embodiment discloses "... a terminal of said upper metal current collector is disposed through said hole in the center of said sealing plate," as recited in claim 1. Appellant's exemplary embodiment includes upper metal current collector 1 and sealing plate 2. During fabrication, the doughnut-like sealing plate 2 is provided with a hole. Cap-shaped positive terminal 13 is then inserted into the hole in the center of sealing plate 2, as indicated by the arrow in Fig. 2 (Page 9, lines 24-27). This fabrication produces the exemplary battery shown at Fig.1.

Yoshinaka includes a sealing plate A1 and a filter 1 (Fig. 1). The Examiner argues that filter 1 is the same as Appellant's claimed upper metal current collector (Examiner's Answer, page 3, lines 13-14). The sealing plate A1 of Yoshinaka, however, does not include a hole of any kind. In fact, the Examiner admits that Yohinaka does not disclose "... a terminal of said upper metal current collector is disposed through said hole in the center of said sealing plate," as recited in claim 1. (Examiner's Answer, page 7, lines 1-2).

The Examiner argues, however, that Appellant's claimed feature of "... a terminal of said upper metal current collector is disposed through said hole in the center of said sealing plate" would have been obvious to one having ordinary skill in the art in view of the one-piece sealing plate and terminal configuration of Yoshinaka and APA (Examiner's Answer, page 7, lines 2-14). Appellant disagrees. "[R]ejections based on obvious grounds

cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *In re Kahn*, 441F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006), *quoted with approval in KSR Int'l Co. v. Teleflex Inc.*, 127 S.Ct 1727, 1741, 82 USPQ2d 1385, 1396 (2007). The Examiner's statement (that Appellant's claimed features are obvious) is merely conclusory and does not support the legal conclusion of obviousness.

Appellant discovered a problem with the conventional one-piece sealing plate and terminal configuration of Yoshinaka and APA (see, for example, Appellant's substitute specification at page 7, lines 7 - 17). Both Yoshinaka and APA include conventional leads which occupy space and create more resistance. Yoshinaka includes lead 9 (Fig. 3). APA includes lead 11 (Fig. 4 of Appellant's specification). As described above, Appellant's exemplary embodiment uses a two-piece sealing plate to solve the above identified problems. That is, the doughnut-like sealing plate 2 of Appellant's exemplary embodiment is provided with a hole. The cap-shaped positive terminal 13 is then inserted into the hole, eliminating the need for a conventional lead and producing the structure of the exemplary battery shown at Fig.1. By disposing the current collector 1 through the hole, upper current collector 1 and positive plate 3 become more closely joined. This causes significant reduction in resistance and eliminates space occupied by a conventional lead (Appellant's specification, page 5, line 29 to page 6, line 8). Further, Appellant's claimed features allow for a simpler method of assembling the cylindrical alkaline storage battery of the present invention, as described in Appellant's substitute specification at page 9, lines 12 - 26, with reference to Fig. 2.

Therefore, Appellant respectfully submits that Appellant's claimed features of "... a terminal of said upper metal current collector is disposed through said hole in the center of

said sealing plate," would not have been obvious to one having ordinary skill in the art in view of the one-piece sealing plate and terminal configuration of Yoshinaka and APA.

2. Rejection of claims 1-6 and 8 as unpatentable over Han in view of the APA

As described above, Appellant's exemplary embodiment discloses "... a terminal of said upper metal current collector is disposed through said hole in the center of said sealing plate," as recited in claim 1.

The cap assembly of Han includes a sealing plate (top layer of cap assembly 18) and a current collector (bottom layer of cap assembly 18). The sealing plate has a cap-shaped terminal and the current collector has a hole for venting gas (Fig. 2). The sealing plate of Han, however, does not include a hole of any kind. In fact, the Examiner admits that Han does not disclose "... a terminal of said upper metal current collector is disposed through said hole in the center of said sealing plate," as recited in claim 1. (Examiner's Answer, page 9, lines 17-19).

The Examiner argues, however, that the two-piece sealing plate and terminal configuration of Appellant's exemplary embodiment would have been obvious to one having ordinary skill in the art in view of the one-piece sealing plate and terminal configuration of Han (Examiner's Answer, page 9, last line to page 10, line 5). Appellant disagrees. "[R]jections based on obvious grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006), *quoted with approval in KSR Int'l Co. v. Teleflex Inc.*, 127 S.Ct 1727, 1741, 82 USPQ2d 1385, 1396 (2007). Thus, Appellant

continues to submit Examiner's statement that Appellant's claimed features are obvious are mere conclusory statements and do not support the legal conclusion of obviousness.

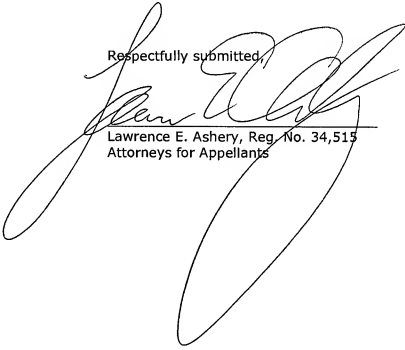
The Examiner's position is that cap assembly 18 of Han is equivalent to Appellant's claimed two-piece sealing plate and terminal configuration. This position is based on essentially the same arguments that the Examiner claimed supported his position with respect to Yoshinaka

Appellant respectfully submits that these arguments of the Examiner with respect to cap assembly 18 of Han are flawed for the same reasons presented above with respect to cap-shaped terminal plate 13 of Yoshinaka, and that two-piece sealing plate and terminal configuration of Appellant's exemplary embodiment would not have been obvious to one having ordinary skill in the art in view of the one-piece sealing plate and terminal configuration of Han.

CONCLUSION

Appellants respectfully request the Board's reversal of the pending rejections of the above identified Application.

Respectfully submitted,



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